

ABSTRACT

A mid and high frequency transducer having a compact magnet system. A first seat has an annular wall that retains a first disk shaped magnet therein and an annular channel is defined therebetween. A second seat rests on top of the first magnet and first seat and is connected thereto but does not occlude the annular opening. The second seat has an annular wall that retains a second disk shaped magnet therein such that a uniform annular gap is defined therebetween. A first voice coil is connected to a first diaphragm and is moveably suspended within annular channel and a second voice coil is connected to a second diaphragm and is moveably suspended within the annular gap. Application of an electric current to the voice coils causes movement of the diaphragms due to the magnetic flux created within the annular channel and gap and thereby produces sound waves.